

Report of Survey for Repairs, &c., of Engines and Boilers.

(Received at London Office JUL -8 1940)

Date of writing Report 20/5/40. When handed in at Local Office 22nd May 1940 Port of Kobe.

No. in Book 390 Survey held at Tama. Date, First Survey 19/4/40. Last Survey 15/5/1940. (No. of Visits Three.)

on the Machinery of the ~~Vessel~~ Steel M.S. "KORYU MARU".

Gross 6680 Net 4768 747 NHP Vessel built at Nagasaki. By whom Mitsubishi Zosen K.K. When 1931 12mo. Engines made at Nagasaki. By whom Mitsubishi Zosen K.K. When 1931. Boilers, when made (Main) (Donkey) 1931. Owners Hiroumi Syozi Kab. Kaisya. Owners' Address (if not already recorded in Appendix to Register Book.) Port Kobe. Voyage. Main Boilers -- Donkey Boilers 1 Pressure -- Main Boilers -- If Surveyed Afloat or in Dry Dock Both Tama Dock. 100 lbs. (State name of Dock.)

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

Particulars of Examination and Repairs (if any) COMPLETION OF LMC (CS) & DBS. & DAMAGE.

Special Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the nature and extent of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and being detailed in the body of the report, should be briefly summarised at the end of the report. State also the initials of any letters respecting this case.

In cases where the Surveyor has not made a special damage report he is required to state whether he has made his services for this purpose, and why they were declined.

Damage report made by anyone else? If so, by whom? Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? Donkey Yes.

As not done, state for what reasons? Parts of the Boilers could not be thus thoroughly examined? At special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler? April 1940. Present condition of funnel(s) Good.

Surveyor examine the Safety Valves of the Main Boiler? To what pressure were they afterwards adjusted under steam? Surveyor examine the Safety Valves of Donkey Boiler? Yes. To what pressure were they afterwards adjusted under steam? 100 lbs.

Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? and of the Donkey Boilers? Yes. Surveyor examine the drain plugs of the Main Boilers? and of the Donkey Boiler? Surveyor examine all the mountings of the Main Boilers? and of the Donkey Boiler? Yes.

Shaft now been drawn and examined? No Is it fitted with continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? Shaft now fitted been previously used? Has it a continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? 3 m/m.

Distance of examination of Screw Shaft State the distance between lignum vitae of leading metal of stern bush and top of after bearing of screw shaft 3 m/m. Engine parts, when referred to by numbers, should be counted from forward. Is electric light and power fitted? Yes.

Survey is not complete, state what arrangements have been made for its completion and what remains to be done. Complete.

NOTE:- Vessel placed in dry dock, propeller, aft end of stern bush, sea cocks and valves with shell fastenings examined and found or now placed in good condition.

The following parts of Main and Auxiliary Engines were opened out, examined and found or placed in good condition.

Main Engine:- Nos. 2, 3 & 6 cylinders, pistons, valves, gears and covers, connecting rods and top and bottom ends. Nos. 2, 3 & 6 crank shaft journals. Thrust and Intermediate shafts.

AUXILIARIES:- Port Dynamo Engine - all parts. Motor driven air compressor on second deck. (P.T.O.).

General Observations, Opinion, and Recommendation:- The machinery and donkey boiler of this vessel clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, B.S. 9, 11, B.M.S. 9, 11, L.M.C. 9, 11, or L.M.C. 140 lb., F.D., &c.)

are in good condition and eligible, in my opinion, to be continued as classed with fresh record L.M.C. (C.S.) 5, 40. and D.B.S. 5, 40.

(per Section 29) Yen 180:00 Fees applied for 15/5/1940

Damage or Repair Fee (if any) (See Hull Report) Received by me, 19

ing expenses (if chargeable) (See Hull Report)

Committee's Minute 19 JUL 1940

signed + Lmb C.S. 5-40

5.40 5.40

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Lloyd's Register Foundation



Auxiliaries:-(Cont).

Emergency air compressor.

Turbo blower.

Spare starting air receiver - internally.

2 outboard H.P. air bottles - internally.

2 jacket cooling pumps.

Aft piston cooling pump.

Inboard lubricating oil pump.

Bilge pump.

Ballast pump.

General service pump.

Main engine driven sanitary pump.

Feed pumps.

Lubricating oil transfer pump.

Fuel oil transfer pumps.

Fuel oil settling tanks and daily service tanks - internally.

Donkey boiler fuel oil service tanks - internally.

Dynamo engine fuel oil service tanks - internally.

Pumping arrangements examined and found in order.

The Donkey Boiler was examined over all parts with doors, mountings and safety valves and found or now placed in good condition. Safety valves adjusted under steam as stated above.

Steam pipes examined in place and found in order.

Oil burning Installation:-

Oil fuel pumps, opened out, examined and found in good order. The Oil fuel tank, valves, pipes and deck controls, for the oil fuel burning installation and fire extinguishing apparatus examined and found in order.

The installation afterwards examined under working conditions and found satisfactory.

S.R.L.:- LMC(CS) completed the cycle now as stated above.

NOTE:- Electrical survey was done May, 1939.

"C" DAMAGE REPAIRS:-

Damage stated to have been caused whilst jettisoning timber cargo to refloat herself after grounding at the mouth of rivet Berau between the dates 28th and 30th January 1940 whilst on a voyage from Naga, Borneo to Nagoya, Japan via Zamboanga. <sup>P.I.</sup> For further particulars please see Kobe Damage Report dated 15th May 1940.

All sea valves and cocks and their connections, the general service pump, 2 jacket cooling pumps, lubricating oil cooler and piston cooling water cooler opened out, cleaned and all replaced in good condition.

REPAIRS DUE TO WEAR AND TEAR:-

Main Engine No.6 piston renewed on account of a crack at the bot tom corner of the upper piston ring groove.

No.2 cylinder head renewed due to cracks on the combustion surface in way of fuel and starting valve pockets.

Port dynamo engine - all cylinder liners and all gudgeon pins renewed due to wear. Other minor repairs and adjustments effected.